CAPITAL APPLE

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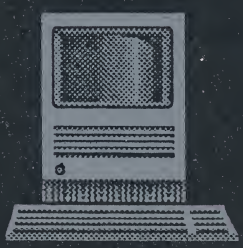

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Meeting Information

The next meeting of the Wellington Apple Users Group will be on :

Thursday, 28 September, 1989

at

St Marys College

starting at

7pm.

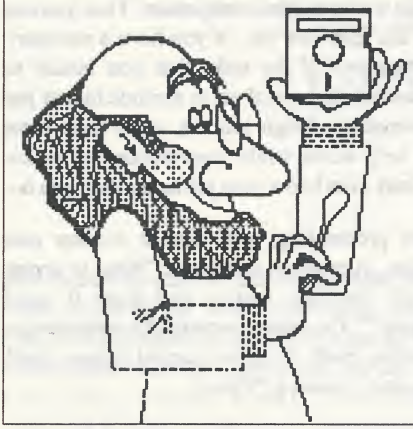
The doors will be open at 6.30 pm to let people get together and the meeting itself will begin at 7pm SHARP.

The Man from Claris

This month's hilight will be a talk by Grant Cowie from Claris about Claris, its products and upgrades. He will be meeting the Apple // and Mac people seperately, to talk about the special upgrades Claris will be offering through the user group. There will be time for a question and answer session.

While Mr Cowie is talking to the Mac people, the Apple // people will be continuing last month's session on AppleWorks, with questions and answers. There will also be a demonstration of some of the Public Domain software.

While Mr Cowie is talking to the Apple // people, the Mac people will be continuing last month's discussion on databases (possibly including a demonstration of Fourth Dimension), and some of the best from our Public Domain library will be displayed.



The Doctor is In !

At all meetings we run help clinics for major machines and software.

These clinics are run by nominated "experts" who will be announced each evening by the Meeting Co-ordinator. The idea is that you can ask the "Doctors" about any problems (hardware, software, interfacing etc) you may be having. If the "Doctor" can't cure your problem he will put you in touch with a specialist for further diagnosis and comprehensive treatment.

F E A T U R E

Databases

Part One

by David Wilson

What is a Database? The World Book Dictionary defines a databases as "*a large collection of records stored on a computer system from which specialised data may be extracted or organised as desired.*"

The word database is a well used buzz word these days, especially when comparing the 1980's with the 1950's. Back in the 1950's very few people had ever heard the term database, and it may not have even been in the Oxford dictionary. Computer programmers back in those days were the sort of people that worked in dark rooms away from the public at large. They worked on saving "bits" in their programs so that they could run on computers with so little memory that it is to hard to imagine.

And what of the famous computer company that started in a garage? Well that didn't even exist.

The best parallel that can be made between the 1950's and today that best equates to a database is a filling cabinet. The filling cabinet is an excellent parallel to a database. You can think of the folders within the filling cabinet as **Files** and the sheets of paper within the folders as **Records.**

Now that you have some understanding of what a database is, the next question is "How do I know that I need one?"

Despite peoples best intentions, not all manual systems work better on a computer. The systems that work best are the ones that have hundreds, thousands and millions of records of information. Or systems that save man hours. Any manual task that is repeditive, labour intensive and can be done by computer is probably best done by a computer.

You probably by now already have a manual system that you would like "computerised". However you possibly have some very searching questions all related to "Where to from here?".

Senior Programmers and Systems Analysts have spent many years working and attenting training courses hat enable them to implement computer systems. I think that many "inexperienced" Macintosh **and** PC owners who think they know what they are doing often end up with spegatetti when trying to implement computer systems for themselves. It would seem that there is no subsitute for good courses and experience.

The Senior Programmer or Systems Analyst would normally start a project by doing a little bit of investigation. Interviews would be conducted to find out everything about the existing manual system (Note that the process is only slightly different for brand new systems, that is where there is no existing manual system).

Now being self employed and owing a Macintosh, you already know your business, and the system that you want you Macintosh to run. Thus you can avoid the interview bit. If you have a secretary that does any of the tasks that you intend to computerise, be careful not to exclude him or her in the system design process, often they have some very worth while contributions to make. They may even know your job better than you do.

Before proceeding, you should answer one question. A problem statement: "*What is wrong with the existing system and does it need changing?*" You cannot successfully computerise an existing badly designed manual system, until the manual system is "Fixed".

The Design Process

How you proceed next is depentant on which education process you have been through. You could start designing your system by constructing the menus. On the other hand you could start at the correct place and plan what information you intentend to store in your files and what if any relationships any fields within those files will have with other files. This process is better known as Data Modelling.

When designing systems to run on Mainframe computers, it is normal to design your file layouts, establish what input / output screens, processes and reports are required, then build the menus.

The Tools

The Macintosh product Omnis 3 fits into this process very well. You use this product to design file layouts, layout screens. Put in associated logic with screens, design reports and build menus. A new version of Omnis (version 5) has recently been released. I hope to be in a position to review this very shortly.

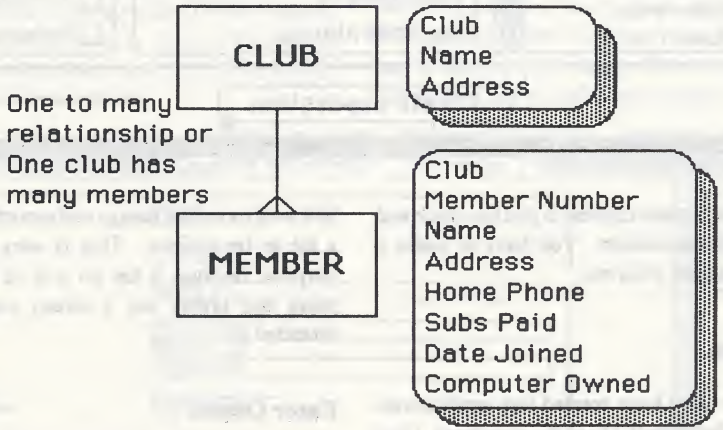
As far as I am aware, Omnis 3 was released not very long after the IBM PC product dBase III (but I could be wrong). In my opinion Omnis 3 is by far a more superior product. Systems are easier to implement, they have more flexibility and they are extremely easy for the **'user'** to use.

In the Macintosh world, Omnis 3 is put head to head with 4th Dimension. I believe you need to know a fair bit about 4th Dimension before you start work with it. On the other hand, I was able to 'drive' Omnis 3 for and entire week before I needed the manual.

The Design Process (Continued)

Using Omnis 3 as our application building tool, lets build a small application.

What we are going to construct is a 'Mailing List System'. This is just going to be an ordinary mailing list though, it will be held by a bureau. Not only do WAUG use this ficticious facility, but so do several other clubs. This probably sounds a little confusing, lets use this picture to illustrate.



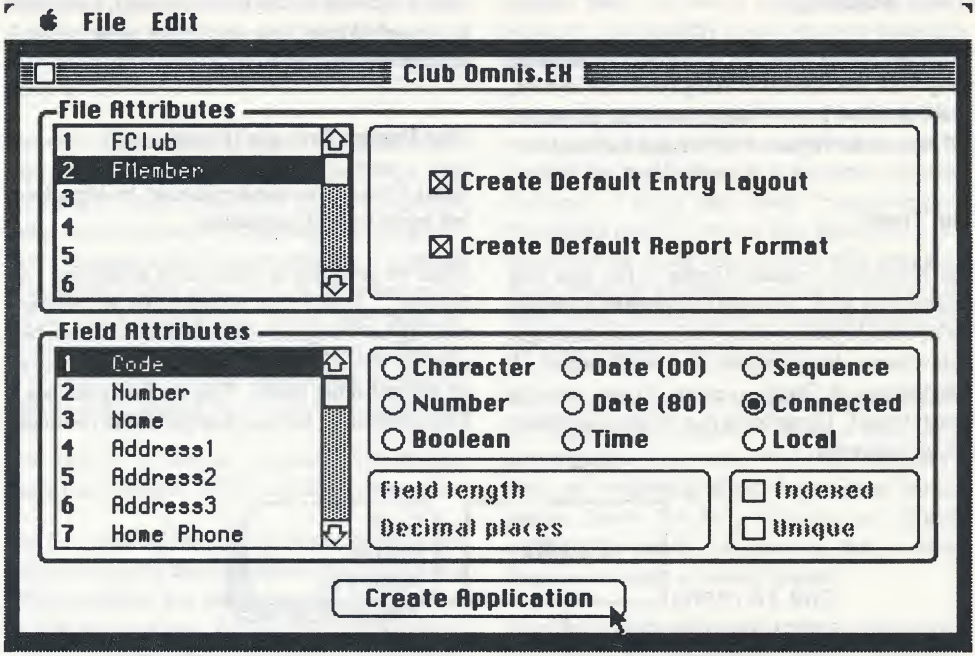
This picture contains a data model, thats the two boxes joined by the '*crows foot*' illustrating the One club has many members or One to Many relationship. Also on the picture are two other boxes (Only so it looks better). I've used this to show that I intend to set up two files, Club and Member. The two files will contain a number of fields. The field information is listed on the right hand side.

Note that there is no repetition of information, except for club, in either of the two files. One of

the database theories is that information does not need to be stored twice. The field 'Club' is special. This is because when we define the field in Omnis it is not actually stored. It acts as a pointer for the Member record to a record that has the required value (Defined at data entry time) on the Club file. The thing that links the two files is simply that the names are the same and that when setting up the files, you say that the Member is connected to the Club. The Omnis manual expresses this relationship as Member is a Son of Club.

Easy Start

The people at Omnis have provided an 'Easy Start' mechanism for building applications. Omnis Express lets you define your file formats and then at the click of a button create your entire application.



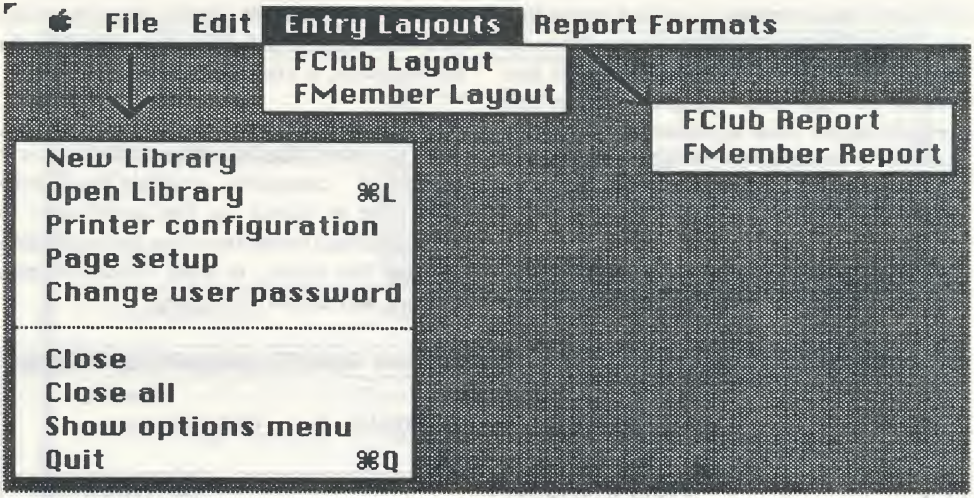
Realy though, Omnis Express is just the quick and nasty application builder. You have to make it look nice, add the frills etc.

Easy Finish

In the past when I have created tiny applications like this just for myself, I have done no more. I just let Omnis Express create the application and leave it at that. However this is a definate no no in by book if you intend someone else to use the application. Omnis Express does create everything for you, including some nice little pieces of logic, however its screen design and report layout leaves a lot to be desired. This is very probably on purpose, because it has no way of reading your mind and laying out a screen exactly as you intended it.

Enter Omnis

Omnis Express is like a front end to Omnis itself. It builds all the file formats, Entry layouts (or screens), Report layouts, Logic and Menus. Here is a sample of what was built from 'Club Omnis'.



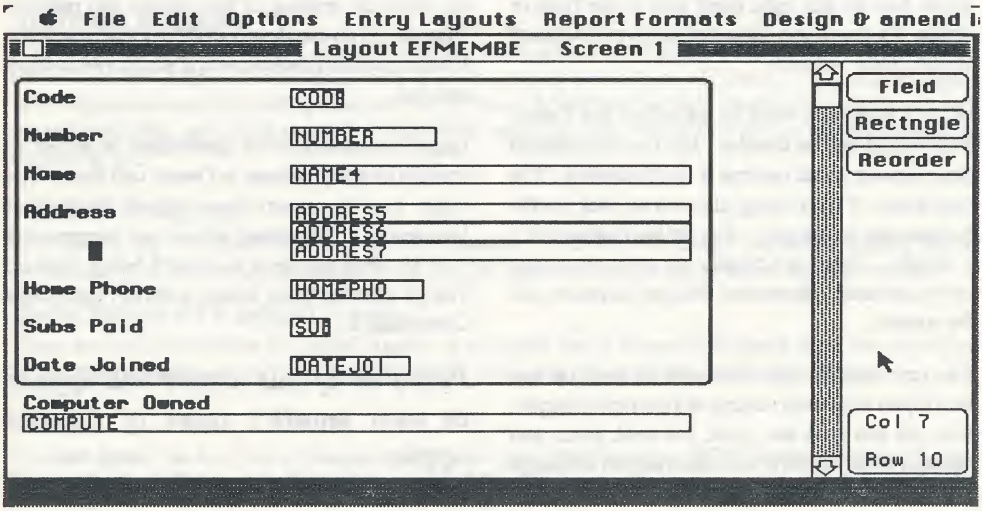
Omnis itself provides you with the power to change all that in minute detail. You as the designer can also turn on the security mechanism so that only users with the correct passwords can gain access, and then only if you choose, allow them to make further changes.

What Now?

After I have used Omnis Express to build a crude outline of the final application that I wish to create, I start some customerisation. One of the reasons that I believe makes Omnis stand out, is for its ease of use as a development tool.

Omnis also fits into the 'Logical Design' process. First you define your file formats. Then you design some screens and reports. Add in a bit of logic and some menus and there you have it. Just like the Mainframe design process. Who ever said that this job was hard?

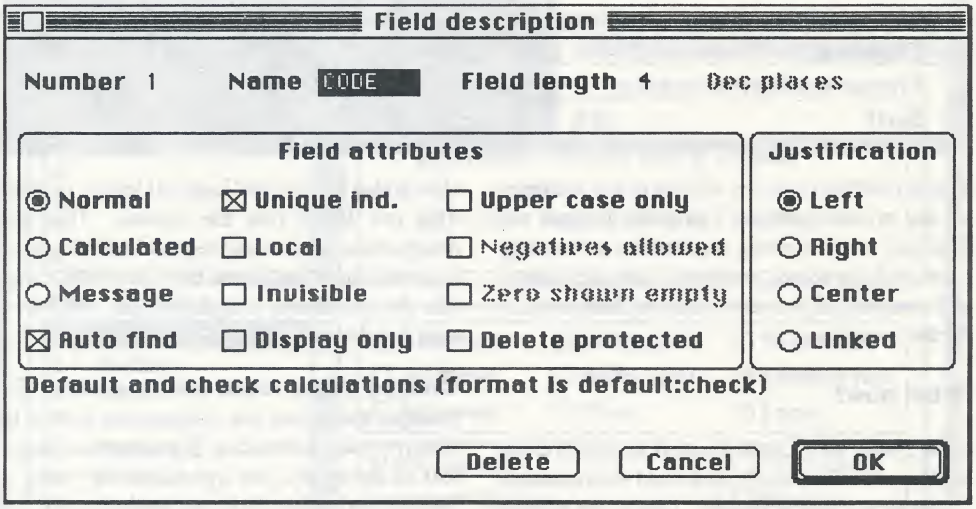
Changing Omnis screen formats is easy. For example the screen that follows was created by simply cutting and pasting. If you want additional text on the screen, just type where the cursor is. The tab and delete keys are used to move text across the screen and things like rectangles can be added with the use of a menu option.



The size of the screen is not restricted to what you see above. You can scroll the screen down the page, up to 10 screen fulls worth. You can also remove the right hand margin. Buttons that normally appear there are removed. The order that input is prompted for, ie field 1 then field 4 then field 2 is also easily changed. Normally the order is the way it was created.

The fields on this screen are outlined by boxes with their field name contained within them. To create a field you simply position the cursor where you want the field to begin and double click the mouse button, or click the field button.

The 'field description' dialogue box that results, gives you more of an idea of just what Omnis is capable of. changeable attributes range from being able to change the field justification to inserting default values like todays date or anything else for that matter, to input validation, auto lookups, and unique id checking.



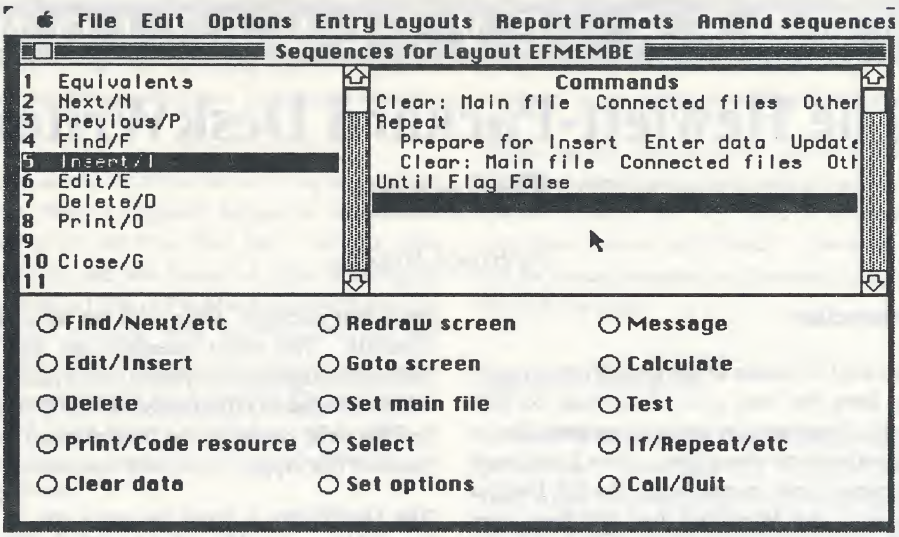
It is also easy to create fields that scroll, or have scroll bars on the right hand side of the field or fields. You have complete control over the size of the scrolling window.

After a hard days work in the office, the Omnis logic could not be simpler. For the experienced programmer it can become a bit frustrating. The restriction of only being allowed to click on the buttons can be anoying. But for the beginner it's a delight. There is litterally no way any syntax error can result. Be warned though, loops can still be created.

One cunning trick that I learned very early on was that if you want total control of your report output, [i.e. not just read and print, but read, print, and update] what you do is to create a screen to initiate and control the report and maintain total control by doing the reading of the records and printing 'frames'. You can do any updating that you wish. Heading control is automatic, if you have headings defined.

Logic is entered into the application 'attached' to screens or entry layouts as Omnis call them. The logic can be entered as logical blocks of 'sequences'. Illustrated above are sequences 1 thru 11, with sequence number 5 being 'Insert'. The '/I' after the word 'insert' is the key equivalent Command-I.

Part Two of this Article will appear in next month's issue of Capital Apple.



SPECIAL OFFERS

3.5" Floppy Disks

Double Sided, Double Density top quality SKC disks are still only $39 a box.

Ribbon Reinking

The club is able to re-ink a number of printer ribbons. Imagewriter, Apple DMP, CItoh 8510 ribbons can be re-inked. These cost $3. Other ribbons can be re-inked also - Epson FX/MX/RX 70/80, Seikosha SP 1000, Panasonic 1080/1090. Still other ribbons have been successfully re-inked, but it depends on the ribbon. Since re-inking these means different drivers for the Macinker, the fee for these is $5. Bring your ribbons to a meeting. We operate an exchange system on Imagewriter ribbons. On others you get your own back at the next meeting.

More on Ribbons

A few ribbons presented to me recently have not been able to be re-inked because they were worn o (small tears and holes in the fabric). For $12 we can supply a new black refill and for $15 we can supply new single-colour refills (red, green, yellow, or blue). In both these cases you need to supply me with the old cartridge, and I will return it to you at the next meeting. We also sell new black Imagewriter ribbons at $15.

Modem for Loan

Our special "free" modem offer is going like hotcakes. There's now about a six month waiting list, so be quick or you'll never get a chance to try out BBSing without having to buy your own modem.

Back Issues of Capital Apple

There are still some issues of Capital Apple. A complete list of the available back issus was published in the March magazine, but they're selling fast! For more information, contact the Editor.

Cables

The user group has a variety of computer cables for sale: printer cables, SCSI interface cables, Mac-to-Mac cables, etc. For more information, contact Mike Eastman, either at a meeting, or phone 787–041.

The Hewlett-Packard DeskWriter Printer

by Bruce Houlf

Introduction

Since the US release of the DeskWriter in early July, there has been a lot of comment on Bix[1] about it. Everyone who had used one seemed to be very enthusiastic about them. Since I had heard that experiments in interfacing the HP DeskJet printer to the Macintosh had not been very satisfactory, I was interested to see the DeskWriter first hand and I arranged with PC Power to borrow one as soon as they became available.

At the $2500 PC Power are selling them for, the DeskWriter is priced just above an Apple ImageWriter II equipped with the optional sheet feeder. This makes them obvious competitors, so most comparisons in this review are with the ImageWriter.

Physical Description

The DeskWriter is a version of the Hewlett-Packard DeskJet printer which has been customised specifically for the Macintosh computer. At first glance both printers look the same and indeed the box and the print mechanism are identical. Both printers are 300 dots-per-inch (dpi) printers which use HP's drop-on-demand thermal inkjet technology. This means that each of the fifty nozzles in the print head has a small resistor which is heated by a pulse of electricity, causing ink to be squirted onto the page.

The difference between the printers is that the DeskJet's parallel interface is gone, as is the slot for a font cartridge, along with the front panel controls. The serial interface has had the communication speed increased from a maximum of 9600 bits/sec to a fixed speed of 57,600 bits/sec and the serial connector has been changed to the standard (for Apple) mini-Din 8 connector.

The DeskWriter is about the same size as the ImageWriter. It looks to be a little deeper, but when I removed the ImageWriter from my very crowded desk, I found that the DeskWriter could fit in the same space. The only problem is that both the in-tray and the out-tray are on the front of the printer, whereas on the ImageWriter the sheet feeder trays are both on the top. This meant I had to move the stack of books from in front of the printer. On the other hand you could put the DeskWriter under a low shelf, since it is only about 200 mm high.

Installation

Unpacking and installing the DeskWriter takes a few minutes. It comes with three 800K disks containing the driver software and the four typefaces which are supplied: Times, Helvetica, Courier and Symbol.

You copy the driver into the system folder and put the outline font files into their own folder inside the system folder. If you load all four fonts it takes 1150 Kbytes of disk space. If you don't already have screen versions of the fonts then that will take another 115 Kbytes.

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1 Bix is the Byte Information eXchange, a large bulletin board operated by Byte magazine.

By the time the software has loaded you will have had time to take the restraining tape off the print carriage, install the disposable ink cartridge/print head, and plug in the power supply and interface cable.

If, that is, you've remembered to buy an interface cable. None is supplied, despite the fact that all Macs since the Mac Plus have had the same connector, and you haven't a hope of using the printer on a 128K or Fat Mac!! I know that this is standard practice with the ImageWriter and probably other printers as well, but it seems rather silly — especially since Hewlett-Packard dealers are not likely to have a min-8 to min-8 cable, so you have to visit you friendly Apple dealer on the way home.

Luckily, I already had a cable.

Using the DeskWriter

Once the software has been copied onto your hard disk and the cables connected, all that remains to be done is to go to the Chooser and select the DeskWriter.

Printing is done in the normal way and the DeskWriter Page Setup and Print dialog boxes look very similar to the familiar ImageWriter and LaserWriter ones and operate in just the same way. The main differences from the ImageWriter dialog box are that the DeskWriter doesn't have a draft mode, and that, like the LaserWriter, the DeskWriter is able to reduce or enlarge the page by anywhere in the range from 25% to 400%.

When you print a document there is a short pause with a lot of hard disk activity before the printer feeds a page from its input tray. Then the print head starts moving almost silently back and forth, magically leaving jet black print behind it on the page.

I find that it is almost impossible to resist the temptation to lift the lid of the printer in order to watch this process. I'm quite used to seeing pages glide silently out of a laser printer, but the sight of a fairly normal looking "dot-matrix" print head going about it's business without assaulting the eardrums is something else altogether!!

Where the ink has just been deposited it has a shiny wet appearance, but it usually only takes a second or two to look dry. The exception is for very large areas of solid black — these can stay wet for several minutes, and can soak completely through the paper.

Speed of Operation

Hewlett Packard rate the DeskWriter at one page per minute. To check this I timed both the DeskWriter and the ImageWriter while printing the same document from Microsoft Word Version 4.0. I performed the test with two different documents in order to compare different aspects of the two printers.

All tests were made on a Mac IIcx. The time was measured from when the "OK" button was pressed in the print dialog box, until the last page could be removed from the printer by pulling gently on it.

The first test document was a club newsletter. It consisted of a single A4 page, laid out with two columns of text in landscape format, and used several different fonts and sizes. There were over 3,800 characters on the page, which would be a good example of a fairly complex page.

I tried printing the page in both "faster" and "best" modes, and in both landscape (which it was designed for) and portrait.

The results were (in seconds):

	Portrait	Landscape
DeskWriter faster	60	68
DeskWriter best	64	80
ImageWriter faster	104	108
ImageWriter best	175	220

As can be seen from the above table: while the ImageWriter can be up to twice as fast in "faster" mode as in "best", there is very little speed difference between the two modes for the DeskWriter. When this observation is combined with the fact that "faster" printing on the DeskWriter is only at 150 dpi (dots per inch), compared to 300 dpi in "best" mode, I would probably print everything in "best" mode.

The other major thing to notice in the table is that, in "best" mode, the DeskWriter is almost three times faster than the ImageWriter.

The second test document consisted of eight blank pages. This is basically just a test of how fast the printer can wind the paper through.

The results were:

	Time	Pages/min
DeskWriter	74	6.5
ImageWriter	54	8.9

As you can see, the DeskWriter is about 35% slower than the ImageWriter for this test.

Print Quality

This is the point in the review at which we stop comparing the DeskWriter to the ImageWriter. Or, at least, if we do continue the comparison, we can only say that the DeskWriter is immeasurably superior! So, in order to avoid starting to use collections of adjectives more in keeping with someone trying to flog off cheap PC clones or shares in a State-Owned Enterprise, we will now switch into "Laser Printer Comparison" mode.

Output from the DeskWriter almost looks like it came off a laser printer. There! That's it!

The reason that it is only "almost" like laser printer output is that the characters are not quite as black, and if you look closely they are just very slightly "fuzzy". If you look very closely then you can see that the fuzziness is caused by very small spikes sticking out from the letters where the ink has run into crevices in the paper. Since I was using ordinary photocopier paper, it may be possible to avoid this by using some other type of paper.

Just like a Postscript laser printer, the DeskWriter can scale its typefaces to any size without getting the "jaggies" that you see on the screen or the ImageWriter. I was able to print perfectly smooth looking characters the size of the page, and spreadsheets printed in four point text were perfectly readable.

How it Works

The way in which the DeskWriter works is very similar to the way that all text display and printing will work under the forthcoming System 7.0 software.

All the work of converting the QuickDraw description of the page into a collection of dots is done in the Mac, and then sent to the printer. There are about one million dots on the DeskWriter page, compared to about a quarter of a million dots on the ImageWriter page — hence the need for the higher speed serial interface.

Instead of the bit-mapped fonts which are currently used on the screen and on the ImageWriter, there are "outline" fonts which are stored in a way that lets them be scaled, rotated, reflected or sheared using the mathematical transformations you learnt in Bursary and probably thought were made up just to taunt you.

This sort of technology had been available for a while now, with the GCC Personal Laser Printer being the first to offer it (the Apple LaserWriter IISC uses bitmapped fonts). In retaliation for Apple developing their own format for outline fonts and moving to dump PostScript, Adobe has announced the Adobe Type Manager (ATM) which allows you to use existing Adobe fonts on the screen and on non-PostScript printers.

Where it will all end, I don't know. Hewlett-Packard claim that what they have done with the DeskWriter will be compatible with System 7.0.

All this wonderful stuff takes a lot of memory and horsepower to make it work. As I noted above, all of the timed tests were done on my Mac IIcx, which was able to keep the DeskWriter humming along at full speed. I also very briefly tried the DeskWriter on a Mac Plus with 2.5 megs of RAM and an HD20SC, and on a Mac SE20 with one meg of RAM.

On the Mac Plus, the DeskWriter worked fine. The pause before starting to print was noticeably longer than on the IIcx, and three or four times a page the printer would stop for five seconds or so. It was quite an acceptable performance, and still a lot faster than an ImageWriter.

On the SE20, however, it was a different story. When printing from Word 4, the hard disk light would go almost continuously, and the printer would pause for ten or fifteen seconds after every two or three lines of printing.

The conclusion from this is that a Mac Plus or SE works well with the DeskWriter as long as there is plenty of RAM available.

Software Compatibility

The DeskWriter worked with all the programs I tried it with (including my own ones!). The only problem was that some programs failed to make use of all the capabilities of the printer.

Programs which were designed to work with a PostScript printer (such as Illustrator or Cricket Draw) just produced screen or ImageWriter quality output on the DeskWriter.

Hewlett-Packard claim that the DeskWriter is capable of rotating fonts to any angle, but I was unable to make this feature work. Programs with rotated text features, such as MacDraw II, seemed to think that the printer was an ImageWriter and produced poor quality rotated fonts.

I tried writing my own program to generate rotated and/or reflected fonts using the standard Picture Comments as documented in Macintosh Tech Note #91. What I found was that the Picture Comments were in fact recognised by the DeskWriter, but that they were only honoured if the angle of rotation was a multiple of 90 degrees.

What Does it Cost? And How Long Does it Last?

The recommended retail price for the DeskWriter is $2670, although the dealer I borrowed my evaluation machine from (PC Power) is selling them for $2500. Hewlett-Packard claim a lifetime of 80,000 pages.

The only part of the DeskWriter which requires periodic replacement is the combination ink cartridge and print head. This costs $40 and is claimed to last for 500 pages. This will obviously depend on how much black you have on the average page.

Additional font files are available, corresponding to the built-in fonts in the LaserWriter Plus and LaserWriter II series machines. These cost $207 for each font (including normal, bold, italic and bold-italic), or the whole set is available for $867.

Conclusion

This printer is a real winner!

Unless you want to do colour or multi-part forms, I can't see any reason why anyone would want to buy an ImageWriter now that the DeskWriter is available.

I wouldn't be surprised if it takes a few sales away from laser printers, in particular from the GCC Personal Laser Printer and the Apple LaserWriter IISC which cost more than twice as much and don't really have any advantages over the DeskWriter.

Hewlett-Packard have done a very good job of integrating the DeskWriter into the Macintosh system. The whole thing is as easy to set up and to use as Apple's own printers.

Mac Public Domain

$10.00 each, or $5.00 per entry in the catalogue if you bring your own disk.

Please remember to format all disks you bring to have filled up at the meetings. This will save us a great deal of time. Thanks.

Mac•Animation•4
More Videoworks animation: Ben's Brains, Ben'sBreakin, Finger Snap, Fish Story, Flowers, FUTURE FUN, Moon, and WHAT-ZIT.

Mac•Games•17
A game called Ballistics v2, A fun game for 2 players in which you attempt to blast the heck out of your opponent with a large artillery weapon. Account for wind, etc. Also graphic and sound adventure game: You are father Dominic of the Order of the Soldiers of Purity — a very militant, stoic religious order. You reside in Dera Abbey, which is in a very mountainous backward region of the world. The abbey has been beset with demons, and over half of the brothers and priests have been, or are now possessed. It is no longer a safe refuge from the world of evil. You are called to the Abbot's quarters. He informs you that to free the abbey — and the rest of the known world — from this evil you must quest for the Spear of Destiny, which is known by legend to be in the catacombs under the Black Mountains, and return it to the Abbey. You must prepare yourself and leave immediately!

Mac•Games•18
More small games, Donkey Doo, Pleiedes, Mac Battle - A fun ocean combat game, similar to the classic BattleShip game. Hide your ships, and be the first to torpedo your opponent to a watery grave! For 1 or 2 players, Mac Pente, AdVent 0.5.

HYPER•10
This disk contains 'stacks' of stuff for the programmers out there. XCMD Stacks: SendSerial, HyperSpeak, Video, HyperTerm, Sounds, SoundCapMover, XCmds/xFcns. Here is a sample of some of the XCMDs on the disk: breakSPort.p, Getcreator.p, HitachiVideo.p, SendSerial.p, SoundCapToRes.c,, XCMD.HowToUse.doc, XCmdGlue.inc. And finally two stacks, Six Little Goodies, and Stackware Detective.

HYPER•11
This is an Educational disk of stacks. Four of the stacks on this disk have been 'packed' due to their large size NeuralNet.SIT, NeuroTour #1.SIT a tour of the brain, FingerSpell.SIT, and LiftingGuide.SIT. Also on the disk is Circuits, Timelines, and Periodic Table.

Mac•Program•5

New Unit	Turbo pascal unit to upgrade turbo pascal to have access to Mac II rom routines.
Sample CDEV	Turbo pascal source of an example cdev.

Terminal program	Turbo pascal source for a simple terminal emulator.
Color Stuff	Turbo pascal source for a program that displays moving lines in color (if available).
Mike App	Turbo pascal source for a system that handles the main event loop and other standard mac code for you and lets you create the unique mac code. (Pre release version including all source code).
ShowProgress	Turbo pascal source example of how to show the user how much progress you've made during processing.
PasMat	Program to nicely format pascal source code.
InstallMemoryBar	Adds a remember feature to standard scroll bars.
ResTools 2.0	A resource compiler/decompiler with a language very similar to MPW's Rez tool, which uses a more consistant language than RMaker.

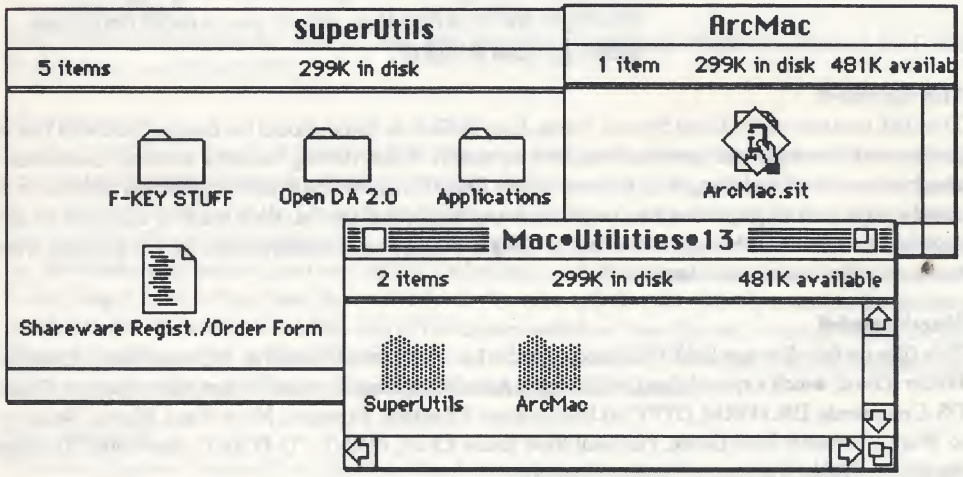
Mac•Spread•5
This disk contains many Excel Spread sheets, Easy Bills is an Excel model for those of you who like to picture and play with your personal business regularly. Excel Accntg contains expense, income and checking account files, along with a macro sheet. Excel Calendar, the system's principal function is to simply print a set of pages that can be put in a ring binder and used to keep track of things to do and appointments, and much much more. Excel Chkg is a cheque processing system for categorising what money you have spent on what.

Mac•Spread•6
This files on this disk are 1988 Withholding.MS v1.4, Accidental NukeWar, Airways Files, Amortize Folder (Great, watch a spread sheet build itself), Auto Worksheet, BaseballPicker, CheckLedger, Clock DS, Commands, DB.FORM, DTP Cost Justification, EReplace, Expenses, MacroStats, Matrix, Numbers to Words, Personal Real Estate, Personal Real Estate Chart, POINT-TO-POINT, StatWorks, Timings for drives, W/M / Currency, Weights/Measures.

Mac•Utilities•13

Sampler -	Lets you examine Fonts, DAs, & FKEY's without permanently loading them.
FKEY Mover -	Like Font/DA mover only for FKEYs.
Disk-File Utility Fkey	This Fkey lets you rename, delete, set file attributes, show volume info & copy (400k) disks..
DateKey -	This Fkey shows current date & time in temporary window.
Special Key -	This Fkey puts Characters into the clipboard.
Print Key -	This Fkey ejects a page from the printer.
MemKey -	This Fkey tells you how much RAM is free.
Inversion -	This Fkey inverts the screen every 10 seconds to prevent screen burn-in.
Fkeyview -	This Fkey shows installed FKEYs.
Fkey - DA sampler -	This Fkey lets you temporarily load FKEYs and DAs to see what they do.
MenuSelect -	This Fkey lets you capture screens to disk while menu's are selected (B/W only).

Version Reader -	This Fkey lets you read version info from files.
OpenDA -	Set up an FKEY to let you open up to 10 predetermined DAs.
Icon Exchanger -	Lets you edit Icons & messages in the startup screen, Bomb dialog box & disk swap dialog box.
Version Reader -	Application lets you read version info from files, (NB. this stuff is now displayed automatically by get info in System 6.0's finder).
ArcMac -	An MSDOS compatible archiving utility that comes with its own MSDOS command line interpreter including batch jobs and IO redirection but provides some Mac ways of doing things as well.



- The whole Public Domain collection is available at meetings for you to fill'em up right away.
- Mail order copying is prefered. If you include the right postage, FastPost return is guarantied.
- Bring you own disks or purchase some at the meeting.
- Many of the disks in this library are labeled as 400K disks, this is to ensure compatibility with those members that do not have 800K disk drives.

These disks will be available at club meetings or you can order them by sending a formatted disk and/ or payment to:

W.A.U.G. - Macintosh Public Domain
P O Box 6642
Wellington

or phone David Wilson at; 286-559 or leave a message on WAUG Shorts 278-817

Problems with Mac•Games•5

The following is an edited version of a letter sent by David Wilson to one of our members. If you've been having trouble with the Mac•Games•5 disk, this letter might tell you why.

I examined your disk, Mac•Games•5 and found that it performed exactly as you had said. "When I tried to run Vampire Castle the following message appeared on the screen **'***** Error 53 at 00002'".

During the examination, I noted that the "Vampire Castle" application was called "Copy of Vampire Castle". I also noted that your disks were 400K ones.

When I examined the library copy of Mac•Games•5, the "Vampire Castle" application was correctly named "Vampire Castle". It was also contained in a folder of the same name.

Noting this I repeated the copy of the disk onto your disk. The "Vampire Castle" application was renamed "Copy of ...." during the copy process. I put this down to the copy process of 800K HFS format disks to 400K MFS format.

To fix the problem I basically renamed the "Vampire Castle" folder on the library copy to "Vampire Castle folder". After re copying the disk, the application worked perfectly.

Thankyou for accurately describing the problem that you were having with this disk. I'm continually encouraged with the interest and support that Wellington Apple Users' Group members are showing in the public domain libraries of the club.

David Wilson
Macintosh Public Domain Librarian

If you're interested in computer graphics, you'll want to attend:

ANZGraph 89

INTERNATIONAL COMPUTER GRAPHICS CONFERENCE AND EXHIBITION

21-23 November 1989
Michael Fowler Centre
Wellington

For more information, write to:

The Conference Secretariat,
P.O. Box 50-124, Porirua.

Apple II Public Domain

By David Empson

$6.00 per disk, or $3.00 if you provide your own disk. All disks are in 5.25" format unless otherwise specified.

This month we feature three educational disks:

Disk: WAUG #26 (front) **Operating System: ProDOS**

Newton's Apple, Volume 1. This disk (and volume 2 below) are intended for high school students. Volume 1 contains lectures on mirrors, reflection and inertia. Volume 2 contains a lecture on probability and a scientific trivia game, "Newton Knows". All the lecture material is well illustrated and has excellent diagrams. The educational value of either disk is debatable. If you are using an Apple II+, you will need 64k and lowercase display.

Disk: WAUG #26 (reverse) **Operating System: ProDOS**

Newton's Apple, Volume 2 (see above for details).

Disk: WAUG #27 (single sided) **Operating System: ProDOS**

This disk contains a game (Sun.Raycer) and lesson material on solar power, in particular the trade-offs involved in designing solar powered cars. [Sun Raycer was a car made by General Motors for a solar-powered car competition in the United States.] A 64k Apple II+ (or better) is required.

Apple IIgs Public Domain

All the disks in the Apple IIgs public domain library are double-sided 3.5" disks (800k). You will require an Apple 3.5" Drive or UniDisk 3.5 (or equivalent) to run any of this software. Most of the software in the GS public domain library is NOT able to run on a non-GS Apple II.

If you have a 5.25" drive on your IIgs, you can also run most of the software in the general Apple II Public Domain library (some of which can be transferred onto 3.5" disks, if necessary). See the Apple II public domain catalog in last month's magazine for details.

Disks cost $10.00 each, or $5.00 if you provide your own disk.

IIgs public domain disks can not be copied at meetings (but may be collected there, if you ordered your disks by telephone).

After several months of work, Allan Honey and myself have finished working on the "official" start-up program for the W.A.U.G. Apple IIgs public domain library. There will be a copy of this program, called ABOUT, on all Apple IIgs public domain disks released by W.A.U.G., except for demonstration disks.

We now have three classes of disks in the library:

- Dealer Demos (these are all that have been available so far). All dealer demo disks are self–booting, unless otherwise noted.
- Specialist disks. These disks contain programs and data for a dedicated IIgs application. e.g. AppleWorks GS templates, Print Shop GS borders/fonts/graphics. For any of these disks to be useful, you'll need the particular program to which the disk is dedicated.
- Miscellany disks. Each disk will contain a few programs in each of several categories (e.g. games, utilities, desk accessories, communications, demos, pictures, sounds, fonts, etc.). There will hopefully be something of interest to everyone on each disk. We will be releasing the first miscellany disks next month.

Both miscellany and specialist disks will contain the ABOUT program, with instructions on how to get the programs (or whatever) up and running. Neither type of disk will be bootable - you will have to boot via a standard Apple IIgs system disk (or a copy of one).

Unless otherwise specified, you will be able to use any Apple IIgs system disk from version 3.1 onwards. If in doubt, use the following table:

System Disk	Operating System(s)
3.1	ProDOS-16 1.3, ProDOS-8 1.4
3.2	ProDOS-16 1.6, ProDOS-8 1.6
4.0	GS/OS 2.0, ProDOS-8 1.7
5.0	GS/OS 3.0, ProDOS-8 1.8

(5.0 was not available in New Zealand at time of writing).

A GS/OS disk is quite obvious: after you boot it, you will see a box in the middle of the screen saying "Welcome to the IIgs", with a sliding bar indicating the progress of the boot. ProDOS-16 can be recognised by its "Splash-screen", which is displayed shortly after the disk boots. This screen tells you that you are running ProDOS-16, and gives you the version number.

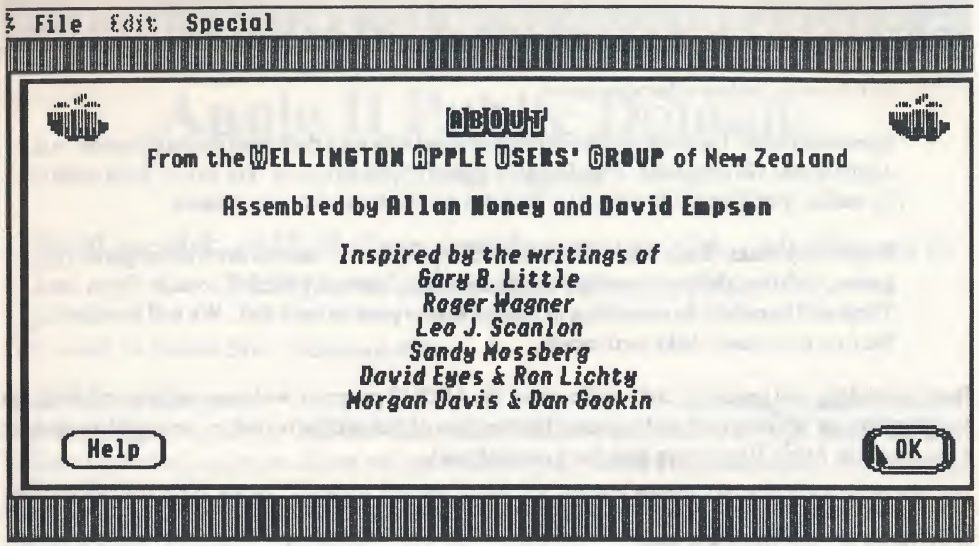
Quite a lot of software will not work with versions of ProDOS-16 prior to 1.3 (i.e. earlier than System Disk 3.1). There is some software that does not work with GS/OS (or misbehaves). These programs will be noted.

About "ABOUT"

ABOUT is a "desktop-style" program (like the Finder, with Menus, Windows and Mouse control). It lets you open and read up to four text files simultaneously, for example, instructions on how to use a particular program on a public domain disk. You have the option of reading the file on-screen, using a scrollable window, or you can print the file out.

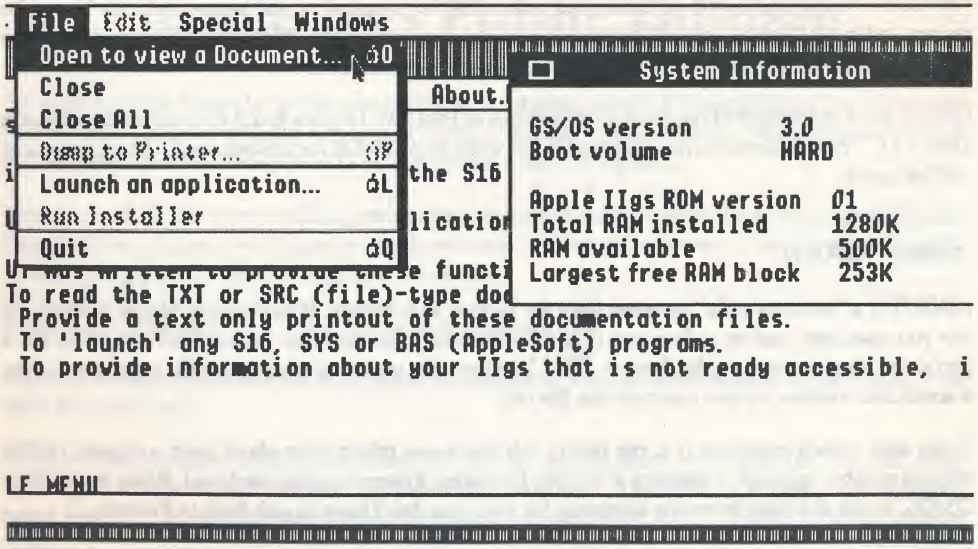
It can also launch programs (i.e. run them), tell you some information about your computer (ROM version number, amount of memory available, Operating System version, etc.), and, if you are running GS/OS, it can also shut down the computer for you (you don't have to quit back to Finder).

It will work with Apple IIgs system disks 3.1 or later (including 5.0).



In general, when you get a new Apple IIgs public domain disk from us, you should boot your system disk, and get into Finder. You then insert the new public domain disk into the drive and double-click on the "ABOUT" icon.

ABOUT has some on-line help, and documentation is provided on the disk, in a file called ABOUT.DOC (which you can read with ABOUT, of course!)


File Edit Special Windows
Open to view a Document... ó0
Close
Close All
Dump to Printer... óP
Launch an application... óL
Run Installer
Quit óQ
System Information
GS/OS version 3.0
Boot volume HARD
Apple IIgs ROM version 01
Total RAM installed 1280K
RAM available 500K
Largest free RAM block 253K
To read the TXT or SRC (file)-type do
Provide a text only printout of these documentation files.
To 'launch' any S16, SYS or BAS (AppleSoft) programs.
To provide information about your IIgs that is not ready accessible, i

Anyway, on to the new disks for this month:

Disk: GS.PRINTSHOP.1
Lots of borders, fonts and additional graphics for Print Shop GS. These do NOT work with the standard Apple II version of Print Shop. You must have the IIgs-specific version.

Disk: GS.MEAN18.1
A further 6 courses for the Mean-18 Golf game.

Disk: GS.MSTUDIO.1
A collection of songs to be edited or played with Music Studio.

To order Apple II or IIgs public domain software, write to

W.A.U.G. - Apple II Public Domain
P.O. Box 6642
Wellington

or phone David Empson on (04)856-611 (work)

SPECIAL INTEREST

The Apple II—Mac Connection: Using AppleWorks

by Alastair Thomson

Some time ago an article was published in Capital Apple, (July 1988) showing how to send text files from Apple II to Macintosh using a simple cable of four wires. Considerable interest was subsequently expressed, mostly by teachers, so here is some more information.

Firstly, I did not make it clear that an Apple IIe is perfectly capable of talking to the Mac. I talked about the Apple IIc, and that may have misled all you IIe owners. All you need is a serial card and the simple cable (a couple of Apples help too!) described in the July 1988 article.

Secondly, I was perhaps a little paranoid about connecting the wrong wires. I have been reliably informed that you can't damage your RS232C port if you connect up the wrong wires.

I mentioned in the article that you can use AppleWorks to send the file, which means that you only need a communications program for the Mac, not the Apple II. (I am assuming everyone has AppleWorks and a serial printer). FreeTerm for the Mac is Public Domain and is available from the WAUG Mac PD person, David Wilson.

To use AppleWorks as a sending program you print the file using a specially defined printer.

To define this printer, boot AppleWorks and carry out the following:

- Choose **Other activities** from the Main Menu
- Choose **Specify information about your printer(s)**

- Choose **Add a printer** (you will need to delete one if you already have 3)
- Choose **Custom printer**
- Type a suitable name
- **How is the printer accessed?**

At this point Appleworks changes, depending on the model.of computer. For the Apple IIe, the printer is accessed through whichever slot contains your Serial Card.

- Choose **Interface Cards.**
- The control codes needed to tell the serial port/card to send at 2400 Baud are: **Control-I** followed by **10B**. For a baud rate of 300 you would follow the **Control-I** with a **6B**. (1200 is 8B) Type a caret to signify that you have finished the control code.
- Escape all the way back to **Main Menu.**

You will also have to change the setting of the terminal/communications jumper block on the serial card if you have the card configured for a printer. You will see a block with an arrow on it (probably pointing downwards). Extract this block, and reinsert it upside down so the arrow points upwards. (See the booklet that came with your serial card if in doubt). Don't forget to change it back if you intend to use the card for ordinary printing.

If you are using an Apple IIc, this is how you configure AppleWorks:

- A IIc has its own built-in serial ports, so specify **Port 2.**
- Choose **Printer Codes** then choose **Serial Interface settings.**
- Choose a Baud rate of 2400, parity of none, and 8 data bits/1 stop bit.
- Now escape all the way back to **Main Menu.**

To send a text file you print it (Open-Apple-P) using your custom printer. You will probably have to edit the file on the Mac to get rid of formatting, such as extra spaces or unwanted carriage returns (but a forthcoming issue of Capital Apple may help you here).

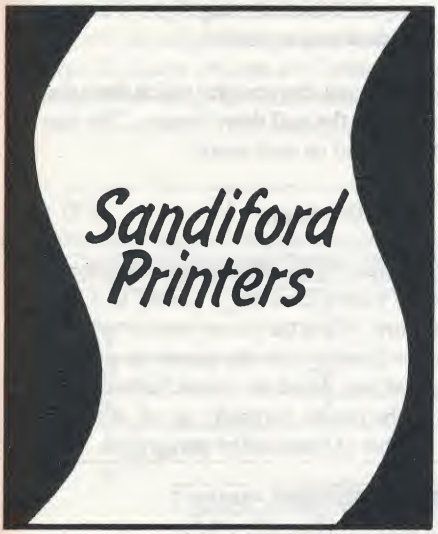
When making the connecting cable, you may find the system works with just *two* wires: the ground-to-ground and the TXD (Apple II)-to-RXD (Mac) wires.

This next table describes the plugs on the cables. All pins on the plugs should have tiny numbers beside them, so it is simply a matter of connecting by the numbers. Remember, TXD means Transmit Data, RXD is Receive Data.

All these plugs should be available from any good electronics shop. I recommend Wiseman Electrical in Wellington.

Type of plug	Computer	Ground	TXD	RXD
Mini DIN 8	IIGS, Mac Plus, SE, II	4	3	5
5-pin DIN	IIc	Middle	*	*
DB 9	Mac 512, 128	3	5	9
DB 25	Super Serial Card IIe	7	2	3

* the IIc is not conventional. Refer to the July article, or the IIc reference manual.



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Works Help #17

Shortcuts & Tips

by Dennis V. Lally

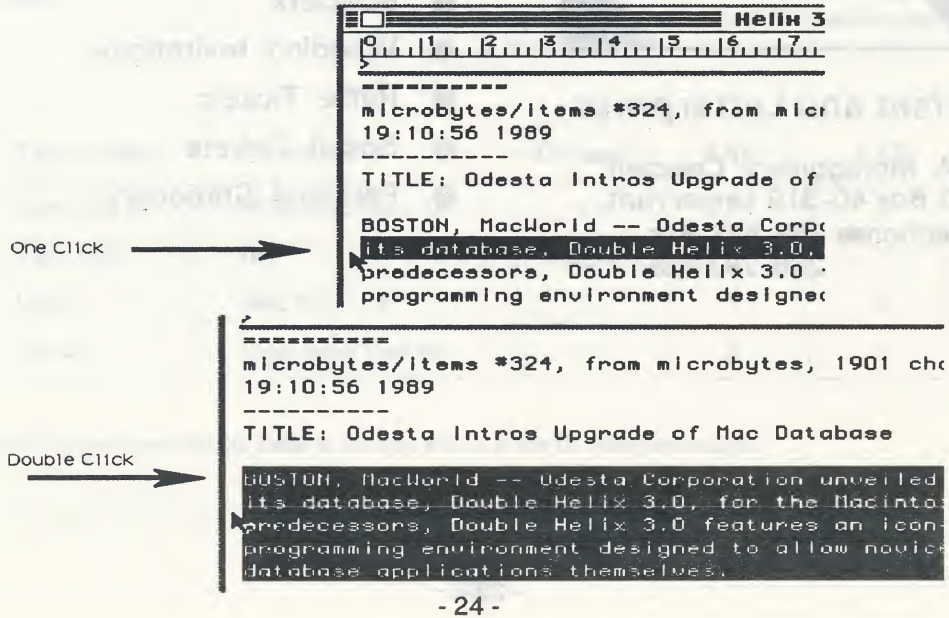
Many users of Works may habitually be taking the longer route in accomplishing various tasks or executing commands. Often this is because that's the way they started with Works and habits are hard to break.

The most obvious shortcuts are using the Command key sequences for various menu choices. Take a look at the menus in MS Works. They show where a command key shortcut is available. Nevertheless, it is surprising that few people actually use them. It is quicker to hold the Command key (the one with the cloverleaf design) down and tap [P] than to move your hands from the keyboard, point and click at the File menu, then aim at the word Print and click again. Further time and motion savings can be made once the Print dialogue box comes up. Many Works users who might use the Command-P short cut to get this far may still reach for the mouse and aim and click on the OK button. Mac users who read the Mac manual that came with their Mac should know that pressing the Enter or Return key will select any highlighted button (button with dark ring around it).

There are additional short cuts for which there are no reminders on the pull down menus. Try the following to speed up your work:

In the Word Processor

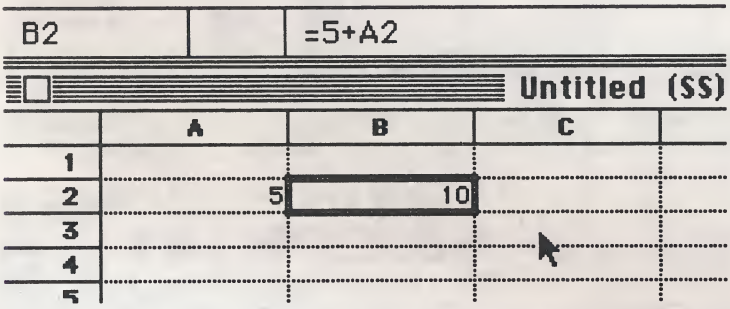
Moving the pointer to the left edge of the document changes the cursor from an "I" beam to a left pointing arrow. Click the mouse once to select a line of text. Double click the mouse to select a paragraph of text. Hold the mouse button down and move the mouse vertically up or down to select a number of lines and/or paragraphs.


Helix 3
microbytes/items *324, from mic
19:10:56 1989
TITLE: Odesta Intros Upgrade of
BOSTON, MacWorld -- Odesta Corp
its database, Double Helix 3.0,
predecessors, Double Helix 3.0
programming environment designe
One Click
microbytes/items *324, from microbytes, 1901 ch
19:10:56 1989
TITLE: Odesta Intros Upgrade of Mac Database
Double Click
BOSTON, MacWorld -- Odesta Corporation unveiled
its database, Double Helix 3.0, for the Macinto
predecessors, Double Helix 3.0 features an icon
programming environment designed to allow novic
database applications themselves.

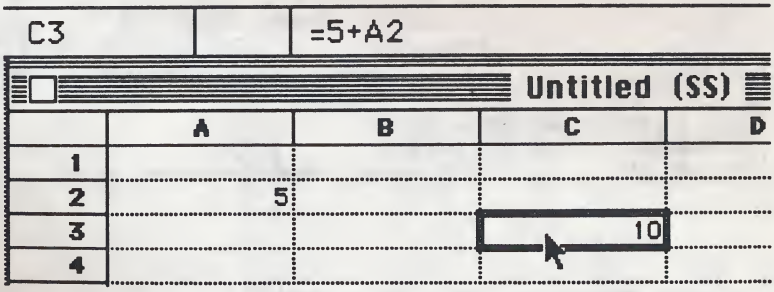
The above techniques are best suited to selecting text that is visible on the screen. Selecting a page of text takes too long just dragging the pointer down. Instead position the pointer (in 'I' beam shape) at the beginning of the text you want to select and click so the cursor is flashing at that point, then hold the shift key down. While holding the shift key down, move the pointer with the mouse the right hand scroll bar and click in the grey band below the white box. Two clicks should take you about a page down. If this is the place where you want to end the selection, move the pointer to the place in the text which will be the end of the selection and click. Your page or so of text will be selected so you can release the shift key. Of course you can also select text from the bottom up using the same technique, as well. Should you need to select many pages of text, it is quicker to actually click on that white box in the right hand scroll bar and drag it down to the right place.

In the Spreadsheet

The best short cut in Works spreadsheet, and I believe it to be unique to Works, is the move command. Simply select the cell or cells you want to move, then hold down both the Command and Option keys, then just click to wherever you want the cell or range of cells to move and they immediately jump there. If you are moving a range of cells, the place you click will be the location for the top left cell of the range. If the destination area is occupied by other words or data, Works will ask you if you wish to overwrite them or allow you to cancel the move.



Hold Command-Option down, then click on destination

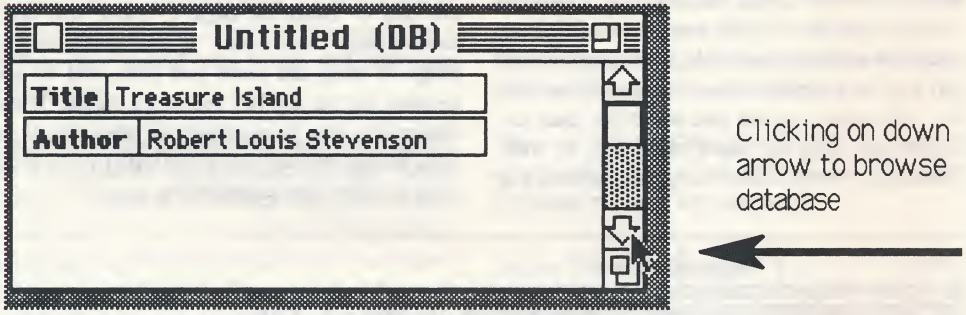


This move technique looks after formulas and data that formulas look to. It changes the relative references of one to the other according to their new locations. Thus if a formula in cell A1 looked for data in cell A2 and you moved the contents of cell A2 to D3, then the formula in cell A1 will change to now look at cell D3. Similarly, if you moved a formula away from a cell it referred to, the formula would not change, it would still look to the same cell. All this means you can move data and formulas and leave it to Works to work out whether changes should be made.

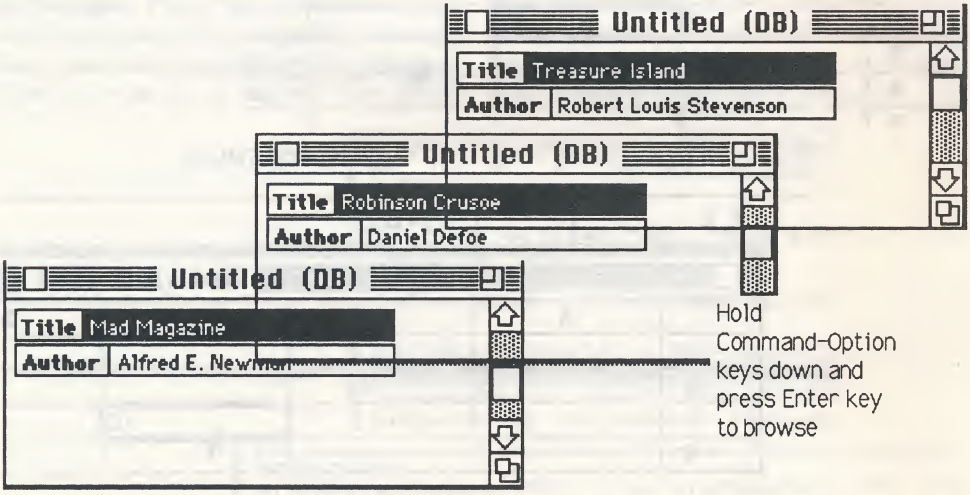
I know of no other spreadsheet on Mac or PC which allows you to move the contents of cells so swiftly and elegantly. Other spreadsheets typically have you cut and paste the cells or identify ranges from and ranges to with at least 12 key presses. Try this technique, I use it often and for this reason alone find Works spreadsheet superior to its big brother Excel when it comes to laying out simple spreadsheets.

In the Database

When using the form mode in the database (where you see one record at a time), the normal way of navigating from one record to the next is to click on the up or down arrows of the right hand scroll bar. This is fine for browsing through a database containing a small number of records, but as the number of records increases you may have noticed a tendency for Works to occasionally skip past a record as you click.



The sure way to browse sequentially through the records is to hold down the Command key and press the Enter key (the one on the numeric key pad) to move down through the records.



To move up through the records hold both the Command key and the shift key down as you press the Enter key. Interestingly, if you had, say, the second field in the record selected Works will continue to select that field as you browse up and down your database. This could be handy if you needed to update a certain field in a number of records. (Note: Avoid using the Return key with the Command key to browse through records as it only selects the first field as you browse down and Command-Shift with Return will not browse up).

PostScript

The **Wellington Apple Users' Group** is a non-profit organisation formed in April 1984 with the following objectives:

- To exchange and disseminate information among the members concerning the computer arts and sciences.
- To publish books, newsletters, magazines and periodicals for the benefit and education of the members and the general public.
- To conduct and sponsor seminars, lectures and courses relating to the computer arts and sciences.
- To provide technical assistance to members of the group.
- To seek privileges and discounts for members.

SUBSCRIPTIONS

Students $22 : Individuals $32 : Families $40 : Corporate $200

INTENDING MEMBERS

Anyone wishing to join W.A.U.G. should contact the membership secretary.

BULLETIN BOARD

The User Group's electronic bulletin board is available 24 hours a day, 7 days a week. The number is (04) 278-817. To access it, you need a 300, 1200, 1200/75 or 2400 BAUD modem.

COMMITTEE MEMBERS		**Home Phone**	**Work Phone**
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Vice President	Allan Honey	638-470	666-969
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Treasurer	Peter Rogerson	284-669	357-600 x 737
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Journal Editor	Erik Westra	769-112	710-585
Committee:			
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Mac PD Software	David Wilson	286-559	n/a
// PD Software	David Empson	849-158	856-611
Membership	Grant Collison	853-687	853-687
Ribbon Reinking	Alistair Thomson	792-673	n/a

Committee members prefer to be contacted before 9:00 PM
Allan Honey is a shift worker. Please do not phone him before 10:00 AM

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Views expressed in this magazine are not necessarily the same as the Editor or those of the Wellington Apple Users Group as a whole.

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Contributions are made to the magazine gratis, but fame and popularity are bound to come to those writing, along with the occasional lawsuit. Copy is preferred as a diskette file (any Apple format). Hard copy is also acceptable.

All correspondence should be addressed to: **The Wellington Apple Users Group, P. O. Box 6642, Wellington.**